

Application No. 10/003,767
Amendment "A" dated December 8, 2005
Reply to Office Action mailed September 26, 2005

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) In a computer network that includes different types of data structures of one or more specific entities, a method for authorizing a requesting entity to operate upon data structures in a standard manner, the method comprising:

an act of maintaining a plurality of role templates that define basic access permissions with respect to one or more command methods, wherein at least some of the role templates define the basic access permissions in a manner that is independent of the type of data structure being accessed operated upon;

an act of maintaining a plurality of role definitions that define access permissions for specific requesting entities by using one or more of the role templates;

an act of receiving a request from the requesting entity to perform at least one of the command methods, the request identifying the requesting entity;

an act of identifying a role definition corresponding to the requesting entity; and

an act of determining access permissions for the requesting entity with respect to the command method using the role definition corresponding to the requesting entity.

2. (Currently Amended) A method in accordance with Claim 1, wherein the act of maintaining a plurality-plurality of role definitions that define access permissions for specific entities comprises:

an act of the role definition corresponding to the requesting entity using at least one access permission that is specific to the requesting entity, wherein the access permission for the requesting entity are defined by the one or more role templates that are used by the corresponding role definition as well as the access permission that is specific to the requesting entity.

3. (Original) A method in accordance with Claim 1, wherein the request includes an identification of credentials used to authenticate the requesting entity, wherein the role definition

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corresponding to the requesting entity is identified using the credential identification, wherein different role definitions may apply depending on the credentials.

4. (Original) A method in accordance with Claim 1, wherein the request identifies the requesting entity by identifying a user as well as a corresponding application that is making the request, wherein different role definitions may apply depending on both the identification of the user as well as the corresponding application.

5. (Original) A method in accordance with Claim 1, wherein the act of maintaining a plurality of role templates that define basic access permissions comprises the following:

an act of maintaining a role map document that contains all of the role templates for a particular service.

6. (Original) A method in accordance with Claim 5, wherein the act of maintaining a role map document that contains all of the role templates for a particular service comprises the following:

an act of defining one or more scopes that describe views on a data structure; and
an act of defining a role template by associating a method type with one of the one or more scopes.

7. (Original) A method in accordance with Claim 5, wherein the act of maintaining a role map document that contains all of the role templates for a particular service comprises the following:

an act of maintaining a role map document as a hierarchical data structure.

8. (Original) A method in accordance with Claim 5, wherein the act of maintaining a role map document that contains all of the role templates for a particular service comprises the following:

an act of maintaining a role map document as an XML document.

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9. (Original) A method in accordance with Claim 1, wherein the act of maintaining a plurality of role definitions that define access permissions for specific entities by using one or more of the role templates comprises the following:

an act of maintaining a role list document that contains all of the role definitions for requesting entities that may attempt to access data structures belonging to an identity.

10. (Currently Amended) A method in accordance with Claim 9, wherein the act of maintaining a role list document comprises the following:

an act of defining a role definition by referencing a role template included in a role map document, the role map being distinct from the role list.

11. (Original) A method in accordance with Claim 10, wherein the act of maintaining a role list document comprises the following:

an act of maintaining a role list document as a hierarchical data structure.

12. (Original) A method in accordance with Claim 10, wherein the act of maintaining a role list document comprises the following:

an act of maintaining a role list document as an XML document.

13. (Original) A method in accordance with claim 1, wherein the act of receiving a request from the requesting entity to perform at least one of the command methods comprises the following:

an act of receiving a request from the requesting entity to insert a portion into the data structure.

14. (Original) A method in accordance with claim 1, wherein the act of receiving a request from the requesting entity to perform at least one of the command methods comprises the following:

an act of receiving a request from the requesting entity to delete a portion from the data structure.

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15. (Original) A method in accordance with claim 1, wherein the act of receiving a request from the requesting entity to perform at least one of the command methods comprises the following:

an act of receiving a request from the requesting entity to update a portion of the data structure.

16. (Original) A method in accordance with claim 1, wherein the act of receiving a request from the requesting entity to perform at least one of the command methods comprises the following:

an act of receiving a request from the requesting entity to replace a portion of the data structure.

17. (Original) A method in accordance with claim 1, wherein the act of receiving a request from the requesting entity to perform at least one of the command methods comprises the following:

an act of receiving a request from the requesting entity to query regarding a portion of the data structure.

18. (Original) A method as recited in Claim 1, wherein the one or more command methods comprise a set including insert, delete, query, update, and replace.

19. (Original) A method as recited in Claim 1, wherein the data structure represents inbox information.

20. (Original) A method as recited in Claim 1, wherein the data structure represents calendar information.

21. (Original) A method as recited in Claim 1, wherein the data structure represents document information.

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22. (Original) A method as recited in Claim 1, wherein the data structure represents notification information.
23. (Original) A method as recited in Claim 1, wherein the data structure represents content information.
24. (Original) A method as recited in Claim 1, wherein the data structure represents role list information.
25. (Original) A method as recited in Claim 1, wherein the data structure represents system information.
26. (Original) A method as recited in Claim 1, wherein the act of identifying a role definition corresponding to the requesting entity comprises:
an act of identifying the role definition by searching a database.
27. (Original) A method as recited in Claim 1, wherein the act of identifying a role definition corresponding to the requesting entity comprises:
an act of identifying the role definition based on authorized role information provided within the request.
28. (Original) A method as recited in Claim 27, wherein the authorized role information includes an identification of a role template.
29. (Original) A method as recited in Claim 28, wherein the authorized role information further includes an identification of at least one refined, local scope for modifying the role template.
30. (Cancelled).

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31. (Currently Amended) In a computer network that includes different types of data structures of one or more specific entities, a method for authorizing a requesting entity to operate upon data structures in a standard manner, the method comprising:

an act of maintaining a number of role templates that define basic access permissions with respect to a number of command methods, wherein at least some of the role templates define the basic access permissions in a manner that is independent of the type of data structure being accessed operated upon; and

a step for authorizing a requesting entity using the role templates in a manner that is independent of the type of data structure being accessed.

32. (Currently Amended) A method in accordance with Claim 31, wherein the step for authorizing a requesting entity using the role templates comprises the following:

an act of maintaining a plurality of role definitions that define access permissions for specific-receiving entities by using one or more of the role templates;

an act of receiving a request from the requesting entity to perform at least one of the command methods, the request identifying the requesting entity;

an act of identifying a role definition corresponding to the requesting entity; and

an act of determining access permissions for the requesting entity with respect to the command method using the role definition corresponding to the requesting entity.

33. (Currently Amended) A computer readable medium comprising computer executable instructions for performing the act and step method as recited in Claim 31, wherein the act and step are performed by computer-executable instructions embodied within a physical computer-readable medium.

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34. (Currently Amended) A computer program product for use in a computer network that includes different types of data structures of one or more specific entities, the computer program product for implementing a method for authorizing a requesting entity to operate upon data structures in a standard manner, the computer program product comprising one or more physical computer-readable media have stored thereon the following:

computer-executable instructions for maintaining a plurality of role templates that define basic access permissions with respect to one or more command methods, wherein at least some of the role templates define the basic access permissions in a manner that is independent of the type of data structure being accessed operated upon;

computer-executable instructions for maintaining a plurality of role definitions that define access permissions for specific-receiving entities by using one or more of the role templates;

computer-executable instructions for detecting the receipt of a request from the requesting entity to perform at least one of the command methods, the request identifying the requesting entity;

computer-executable instructions for identifying a role definition corresponding to the requesting entity; and

computer-executable instructions for determining access permissions for the requesting entity with respect to the command method using the role definition corresponding to the requesting entity.

35. (Currently Amended) A computer program product as recited in Claim 31, wherein the one or more physical computer-readable media are physical-storage media.

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36. (Currently Amended) In a computer network that includes different services, applications, and an authorization station, the applications submitting requests to perform operations on different data structures managed by the different services, a system for isolating the authorization process from the services so that the services need not independently authorize each request they receive from the number of applications, the system comprising:

a plurality of services, each service configured to facilitate operations on one or more types of data structures;

an authorization station configured to receive requests from a number of applications to operate upon data structures managed by any of the number of services, the authorization station configured to perform the following:

receive a request from a requesting entity to perform a target operation upon a target data structure managed by a target service;

access a role template that defines basic authorizations with respect to one or more operations, including at least the target operation, wherein the role template defines the basic authorizations in a manner that is independent of the target data structure desired to be operated upon;

determine that the corresponding requesting entity is authorized to perform the target operation on the target data structure; and

communicate to the target service that the requesting entity is authorized to perform the target operation on the target data structure.

37. (Now) A method as recited in Claim 1, wherein the act of maintaining a plurality of role definitions that define access permissions for requesting entities by using one or more of the role templates comprises the following:

an act of maintaining a plurality of role definitions for the requesting entity, wherein the plurality of role definitions correspond to a plurality of authentication methods.

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38. (New) A method as recited in Claim 1, wherein the act of identifying a role definition corresponding to the requesting entity comprises the following:

an act of referencing a role template; and
an act of refining a scope referenced in the role template, wherein the refinement occurs at a user level.

39. (New) A method as recited in Claim 1, wherein the act of determining access permissions for the requesting entity with respect to the command method using the role definition corresponding to the requesting comprises the following:

an act of determining access permissions below the data structure level.